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Labor conditions and wages in street railway, motor
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Labor Conditions and Wages in Street
Railway, Motor and Wagon
Transportation Services
in Cleveland

BY
RALPH DOUGLAS FLEMING

A THESIS
PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF DOCTOR OF PHILOSOPHY



The Collegiate Press
GEORGE BANTA PUBLISHING COMPANY
MENASHA, WISCONSIN
1916

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STREET RAILROAD TRANSPORTATION

INTRODUCTION

Among the activities which are inextricably woven into the fabric of city life there is none which comes into closer touch with the life of the average citizen than street car transportation. Although little more than half a century old it has had a more rapid expansion than most industries stretching over the same period of time. Especially noteworthy has been its growth and development since 1900. The street railroad companies of the United States, which in 1902 employed over 140,000 persons had by 1907, increased this number to 221,000; and during the next half decade continued to expand, until their employees in 1912 numbered over 282,000 persons.

One representative feature of the growth of street car transportation is that it has confined itself largely to the populous states. Ohio, with its large number of manufacturing cities, has far more street car lines than Texas which is largely agricultural. On the basis of the number of employees in the industry, Ohio is surpassed only by New York, Pennsylvania, Massachusetts and Illinois. In the order named, these states held the same relative positions in both 1902 and in 1912. The proportion which Ohio's street railway employees formed of the total number employed in the United States as a whole, increased from 7.1 per cent in the former year to 7.5 per cent in the latter. In actual numbers the increase was more marked, the number employed in 1912 being 21,245 as against 9,451 in 1902, an increase of approximately 125 per cent.

As the city of Cleveland far outstrips in population other cities in Ohio, it follows naturally that its street car system employs the greatest number of men. At the close of the year 1915 there were employed in this service approximately 2,500 platform men who were almost evenly divided, there being 50.6 per cent for motormen as against 49.4 per cent for conductors. Owing to the use of "trailers" it might naturally be supposed that conductors would form the larger group, but that they do not is explained by the fact that during certain hours of the day motormen serve as conductors on trailer cars. These platform crews operated 1,445 revenue paying cars over a system of 360 miles of track, and collected over 242,000,000 revenue fares during the year, for which they were paid an aggregate amount of \$2,100,000 in wages. Wages formed the heaviest item of expense in street car transportation, and of a car mile expense of 12.6 cents, 6.6 cents, or more than one half was spent on them.

Another distinctive feature of street railroad transportation is the number of varying interests which are concerned in it. Unlike most businesses which are interested only in costs of manufacture and selling price, the street car service, according to Bion J. Arnold has five diverse factors to satisfy. They are: the patron, the operator, the municipality, the property owner, and the financier. To these we add a sixth factor, the employee.

The patron wants an adequate service combining speed with safety. He wants a quiet, easy riding car, well ventilated and heated in season, with plenty of seats. He wants also one fare from starting to destination points with a universal transfer.

The operator looks for up-to-date equipment with track and paving so constructed that vehicles are hindered or prevented from using the tracks. He believes in the regulation of street traffic which gives to the street car the right of way, especially in rush hours. Furthermore, from the standpoint of a traffic expert, the operator favors a condition of operation which permits of all day travel in both directions, with not too heavy a rush at certain hours in the morning and evening, and a service which permits of a large amount of the profitable short haul business.

The municipality to be adequately and ably served requires that passengers shall be carried to the business districts as well as to city limits and suburbs in a minimum period of time at a low cost to the passengers. It needs also to relieve the congestion attendant in moving traffic in the "down town" portion of its city. The municipality usually requires the company to furnish and maintain the pavement between the tracks, and that which lies adjacent to the track, a requirement which is a relic of horse car days when horses actually wore out the part of the pavement between tracks; sprinkle streets, and reconstruct road bed after street improvements are made. To aid in beautifying the city, the municipality sometimes requires the removal of iron or wooden poles, and the placing of wires and cables underground. It usually requires free transportation for certain employees as mail carriers, policemen and firemen, and in some cases stipulates that reduced rates for workmen and school children be provided. An indeterminate franchise with the franchise value eliminated, and with the company supervised and regulated by the city, completes an ideal situation so far as the municipality is concerned.

The real estate owner wants the best transportation facilities for his own district regardless of the rest of the city. The man who owns residential property in the central part of the city wants the growth of the city confined to that part, so far as possible, and recommends two or more

fares to outlying districts and suburbs, while the best interests of the city may require extension of the service to these districts and the maintenance of one fare for the service.

The financier who furnishes the capital for street car transportation maintains that the fare be made large enough to cover the expense involved in providing transportation, with an ample reserve to cover maintenance, depreciation, damages, interest charges, and yet give a fair return on investment.

Finally the employee believes that the street railroad company should furnish a shorter work day at higher rates of pay, and extra pay for overtime, holiday, and Sunday services. He believes, also, that it should grant vacations with pay to motormen and conductors, as it does to office employees and officials. It should, according to this viewpoint, better generally the conditions under which these men are employed.

The problem, then, to be met is how to obtain an equitable balance between all these opposing factions, and yet furnish a service with the maximum of speed, safety and comfort. The present tendencies of the large street transportation lines are to give a higher standard of service with better lighted, better ventilated and more comfortable cars than formerly. It is beginning to be recognized, too, that additional investment is required to provide adequate service, and that extension of new lines may be built through assessments of property owners along the lines of the proposed routes. The crowding evil still persists at the rush hours of the day, and the public, with a knowledge of the policy followed in European cities, holds fast to its claim that a seat for every passenger is justified. To this claim the operators reply that the American public is not willing to wait for the "next car," but insists on boarding one already overcrowded; and that, moreover, if a seat for every person were provided during the rush hours it would require the curtailing of service which is now given without profit during the slack periods of the day.

Qualifications for Employment

The platform positions of motorman and conductor demand men who are careful, courteous, capable, quick witted and who are mentally and physically able to work long and irregular hours. Applicants for these positions must be able to speak, read and write English. They must be men of sober habits and able to act quickly in emergencies, since into their care are entrusted the safety of many people and rolling stock of comparatively high values.

When a candidate presents himself for employment on the Cleveland Street Railway he is interrogated by the employment agent, and if he is considered to be mentally and physically fit, he is given an application blank to fill out. On the blank he writes his name, address, birthplace, conjugal condition, whether he uses liquors and cigarettes, whether he wears eye glasses, trade or occupation, place of last employment and what capacity, previous service in any street or electric railway, and if so where, length of service, reason for leaving, and length of time longest position was held. He records also his age, height, weight, color of hair and eyes and physical condition, as well as the name and addresses of four companies previously worked for which may be used as references, together with the names of four individuals for the same purpose. A photograph of each applicant is taken and attached to his application blank. The applicant pledges himself to discharge his duties faithfully and honestly, obey all rules, abstain from liquor, conduct himself properly to company officials, passengers and public, and to pay for all damages caused by his carelessness.

If the applicant for a motorman's or conductor's position is successful he is given a preliminary training, without pay, of at least 10 days' duration, during which time under competent and experienced motormen or conductors he is taught by actual car operation the duties connected with his work. The prospective motorman is taught how to operate the controller, how to apply and release the brakes and other duties connected with the careful running of a car through crowded streets. The conductor is taught the names of the streets and how and when to call them, where stops are to be made, when to turn lights off and on, how to act in case of accidents, and the various duties which deal with the sale, collection and reporting of transfers and tickets. At the end of each day the conductor or motorman who has served as instructor reports on a blank form the progress made by the student, the instructor reporting on the last day certifying that the man "is qualified to safely operate a car." The new man then satisfies the division superintendent as to his fitness, after which he is placed on the extra list as motorman or conductor until the service permits of his securing a regular run.

City versus Country Men

In the selection of men for platform positions some street railroad companies, in the past, have preferred country bred men claiming that they were in better physical condition, more faithful and more competent, besides being more used to long hours and not easily influenced by their

companions. On the other hand certain other companies have preferred city men, advancing as the reasons, that city men were better educated, better qualified to handle city people by their ready understanding of city ways, more able to deal with difficulties and possessing a wider knowledge of the city. In Cleveland, recruits for these positions are taken from both city and country, but the majority of applicants are natives of this city. The larger part of the remainder is drawn from other portions of the state with a sprinkling from adjacent states.

Former Occupations

Applicants for employment in street railway service are drawn from all walks of life with the number applying usually in excess of the positions available. The wide range of occupations found among applicants for these positions is illustrated in Table 1 which presents for the year 1915 the occupations of applicants for positions of motormen and conductors with the Cleveland Railway Company.

TABLE 1 OCCUPATION OF APPLICANTS FOR THE POSITIONS OF MOTOR-MEN AND CONDUCTORS, CLEVELAND STREET RAILWAY
1915.

Number	Occupation
89	Farmers and Ranchmen
70	Laborers
59	Previous Electric Railway Experience
56	Machinists and Polishers
42	Teamsters and Deliverymen
34	Soldiers and Sailors
33	Office and Shipping Clerks
31	Steam Railroad Experience
31	Mercantile Clerks
20	Salesmen, Collectors and Solicitors
12	Repairmen and Truckmen
11	Iron, Steel and Tin Workers
11	Carpenters and Woodworkers
10	Painters and Wall Paperers
7	Steam and Electric Railway Experience
7	Tailors and Pressers
6	Students and Teachers
5	Butchers and Meat Cutters
4	Coal and Ore Miners

Number	Occupation
4	Electricians and Linemen
3	Hospital Attendants
3	Molders
3	Stationery Engineers and Firemen
3	Upholsters and Chair Workers
3	Plumbers and Steam Fitters
3	Printers
2	Seamen
2	Horse Shoers and Blacksmiths
2	Telegraphers
2	Pattern Makers
2	Cooks and Waiters
2	Barbers
1	Lumberman
1	Lamp Glass Worker
1	Engraver
1	Foreman
1	Milkman
1	Window Trimmer
1	Pottery Worker
1	Jeweler
1	Ticket Agent
1	Coremaker in Foundry
1	Tanner
1	Cooper
1	Baker
1	Horseman
1	Mail Carrier
1	Stone Cutter
1	Photographer

589

It is to be noted that of the 589 applications for employment, 89, or 15 per cent of the applicants had been farmers, and that 70 or 12 per cent of them had been laborers, and that in the 49 occupations tabulated, the range included such diverse occupations as sailors and teachers, horsemen and mail carriers, carpenters and cooks.

As neither the position of motorman nor conductor requires any extensive preliminary training of the applicants it is often sought for by

men who have been unsuccessful in other occupations. It is commonly believed that it is a temporary job, tiding the man over until he can secure other employment. In the Cleveland street car service, however, figures for 1915 belie this general assertion and show that 53 per cent of the men had served four years and over; 61 per cent, three years and over; 68 per cent, two years and over; and 82 per cent one year and over. Less than 20 per cent were first year men.

Age Requirements

Street car service like a large number of other occupations employs a great number of men under 45 years of age. Of 933 conductors reported for Cleveland by the Federal Census in 1910, 87 per cent were between 21 and 44 years as against six per cent who were 45 years or over. The motormen formed the much older group. Of 888 reporting, 80 per cent were between 21 and 44 years with almost twenty per cent 45 years or over. These data are shown in Table 2.

TABLE 2. PER CENT OF MOTORMEN AND CONDUCTORS IN SPECIFIED AGE GROUPS IN CLEVELAND, 1910.

	Conductors	Motormen
Per cent under 20 years.....	7	1
Per cent 21 to 44 years.....	87	80
Per cent 45 years or over	6	19

In most street railway services a minimum and maximum age for entrance is set as well as a maximum age for retirement. In Cleveland no one is admitted into the service before the age of 21 or over 35. Occasionally exceptions are made to applicants, who, although over the entrance age, prove themselves exceptionally fit. No maximum age for retirement is set. As a usual rule applicants for these positions are in their "early twenties." Of 110 applicants received by the Cleveland street railway in 1915, three-fourths were from men 25 years of age or under, and more than four-fifths of the applicants were 30 years or under.

Table 3 gives these age data in detail.

TABLE 3. AGE OF 110 APPLICANTS FOR PLATFORM POSITIONS IN STREET RAILWAY SERVICE IN CLEVELAND, 1915.

Age group	Number	Per Cent
21 to 25 years.....	69	63
26 to 30 years	22	20
31 to 35 years.....	14	13
Over 35 years.....	5	4
	—	—
Total	110	100

The proportion of married and single men were pretty equally divided, the number who were single exceeding the number married by five. The figures were: single 57, married 52, and one a widower.

Nationality

As the positions of motorman and conductor in street car service require the use of the English language a large proportion of them are filled with native born men. In this respect Cleveland proves no exception to other American cities. Of 933 street railway conductors living in this city in 1910, Table 4 shows that almost four-fifths were of native birth, and that of 888 motormen more than seven-tenths were.

TABLE 4. NATIVITY OF STREET RAILWAY CONDUCTORS AND MOTORMEN IN CLEVELAND, 1910.

Native born	Conductors Motormen	
Per cent born of native parents	39	39
Per cent born of foreign parents.....	40	33
Per cent of foreign birth.....	21	28

In 110 applications of which reference has been made 100, or more than nine-tenths, reported the applicant as being of native birth. Of the 10 remaining applications three were from applicants born in other English speaking countries.

Promotion

Chances of promotion to higher positions in street railroad service are few. Measured purely on the basis of numbers, without regard to the length of their previous service, their qualifications for higher positions, or the expansion of the traffic, the chance of the average platform man in Cleveland, either motorman or conductor, for a higher position is small. There are 1250 motormen and conductors to one superintendent; 416 to each division superintendent; 89 to every dispatcher and 71 for each inspector.

The question of promotion is usually a bone of contention between the union and the railway company. The union advocates a standardization of conditions of labor with the avowed aim of the greatest good for the greatest number. Whatever promotion is to be given, it believes should be automatic, and should be gained through length of service, or what is known as seniority. In fact, its agreement with the company provides that motormen and conductors longest in service shall have the first choice of runs, with the right of selection to be granted in May and

October of every year; and that whenever schedules are changed, except emergency schedules, this right of selection by seniority shall continue in force. The street railroad company, on the other hand, believes that promotion should be given to those of its employees whom it considers capable of performing the best service, without any regard to length of previous service. The labor union and the street car company each wishes to hold the loyalty of the men but in this one respect it is impossible for the worker to be loyal to both. That the union recognizes this principle is shown by the fact that whenever a motorman or conductor is promoted to the higher position of inspector or dispatcher, he is obliged to sever his connection with organized labor and passes into a grade just below the minor officials of the company. So far as this one factor in condition of labor is concerned, it is readily seen that the purposes of the street car company and the association are at variance.

Promotion in the service to most motormen and conductors as a usual thing comes in the form of better runs. These are given according to seniority. Some men prefer a daylight run which allows them to have the evenings to themselves; others, take what is known as an "early-late" run which permits them to be off duty in the middle of the day. In making this choice, too, the men are guided by the number of trips which they can secure in one day, since they are paid on an hourly basis. As time tables are made up on the basis of traffic requirements the opportunities for earnings run a wide gamut. There is probably no greater amount of variation in working hours in any other occupations in Cleveland than in those of street car transportation. The increased chances for remuneration coupled with other desirable features which certain runs offer cause them to be looked upon as prizes, and when once secured are considered in the same light as a promotion would be in any other industry.

Cash Deposits

Street railway conductors on entering the service in various cities of the United States are either required to give a bond or make a cash deposit of from \$10 to \$25. In Cleveland the latter practise is followed and a cash deposit of \$20 is required to cover the cost of tickets, transfers and change which a conductor must carry. On leaving the service this deposit is returned.

Discipline

The responsibilities, duties and obligations which a street car company holds to the general public places it in a different relationship from

that of the ordinary industrial establishment. The street railroad is a quasi-public corporation, a public utility which is given a corporate life by the state in return for the performance of a certain service. The conduct of its business is hedged about with moral and financial restrictions as are other public utilities, for the reason that it is performing a public service. The very nature of the responsibilities attendant upon the service requires that strict rules be imposed upon the employees who represent the corporation in its transactions with the public.

The official relations between the men and the street railway company in Cleveland were formerly set forth in a book of rules. This has long since been abandoned and any information not contained in the application blank is now given to the men verbally.

In administering discipline the nature of the offense, the length of service of the person charged with the offense, and his previous record are all considered by the division superintendent. For committing minor offenses such as failure to be neat and clean in appearance, to report promptly for duty, to turn a car board (sign) on arrival at destination, or to snap off lights at the proper time, the employee may meet with a reprimand. Such offenses as gross incivility to a passenger, causing an accident which might have been prevented, or indulging in liquor while on duty, brings summary discipline. If the offense be considered sufficiently serious by the division superintendent, the offender is laid off pending investigation of his case. If the employee feels aggrieved he may have his case taken up by officers of the union with the general superintendent, and failing settlement there with the general manager; and, that failing, by appeal to the president of the company. In case the matter is not then settled, resort may be had to arbitration. If the man charged with the offense is found to be innocent he is reinstated in the service and paid for such lost time as may be decided upon. If he is guilty, and if the nature of the offense warrants it, he may be discharged from the service, or he may be temporarily laid off and later reinstated.

Regularity of Employment

Among the many and diverse industries employing men in Cleveland there is probably no one in which the working force is maintained at a more even level than in street car transportation. The service is bound up with the life of the city and must be carried on uninterruptedly day after day. The chances for work, for men on the regular list are very great, and for some of them it is often a question of over-employment rather than under-employment.

While the work is extremely steady it must be understood that such steadiness does not present a dead level throughout the year, but varies on certain days of the week as well as in certain months. On each of the first five days of the week 80,000 Clevelanders are carried to and from various points in the city, with an additional 10,000 shoppers, theatre-goers and others on Saturday. On Sunday a smaller number of persons use the cars than on week days. In the late spring and summer months, May, June, July, and August, the traffic grows heavier and additional men are employed to provide for the increase. Sunday traffic also gains in volume over this period.

The needs of street railway transportation call for a flexible service in addition to a regular one. For this reason there are engaged what is known as extra men, which form the "reserve army" so familiar in packing establishments, mining towns, and along water fronts. The extra men are used to keep the service running smoothly. If a regular conductor or motorman is sick or absent, an extra man takes his place; if a rush occurs as it did on a certain Sunday afternoon last fall when 90,000 people were hauled to a city championship ball game, the extras are pressed into service; at certain rush hours in the evening all the extras available are used. The company can not afford to carry large numbers of men for whom it has no regular work, and yet when an unlooked for demand "out of a clear sky" is made, it must furnish the service. To guard against such a contingency it protects itself with the extra list. This, as Walter Weyl points out, in a report on Street Railway Employment in the United States, is essential to regular and continuous service, and while difficult for the employee on account of low earnings is but a temporary hardship if advancement is rapid. Unfortunately advancement from extra to regular is not rapid on most lines in Cleveland since the expansion of the service does not permit of it.

Some companies, in other cities, carry large extra lists which result in making the extra men eager to secure a regular job, and the regulars to hold on with bull dog tenacity regardless of conditions imposed. Thus, under such conditions there is over-employment on one side and under-employment on the other. Some men will work long hours through fear of being supplanted by an extra without taking any lay-off over a long period, while others cannot work long enough each day to secure a living wage.

The extra list, moreover, has other disagreeable features. Through this arrangement the runs are constantly shifted making employment uncertain, hours of actual work unduly short, and earnings small. Each

man, too, whether he is employed or not must report to the dispatcher every day.

Various suggestions have been offered as a solution for this difficult and important problem in street traction. The union asserts that all employees should be guaranteed a certain minimum hours of service per day, estimated in Cleveland at five hours, which will permit of the men earning a certain amount. Others claim that the solution rests with the men themselves. By giving up their seniority which secures to the oldest men the best runs and the longest working hours, and dividing the work evenly among all employees regardless of the length of time in service, they will all fare alike. Still others claim that men employed in the car shops and in various other capacities in car stations could be "broken in" to run cars in rush hours, and on unusually busy days, and thus take up the "slack" in the service which is now done by the extras. They hold that if the union were to permit this, the problem would solve itself.

As to regular conductors or motormen, the constant demand for transportation necessitates their working on Sundays. While volume, concentration, and destination of traffic differs on Sundays from that of week days, the demands made upon the motormen and conductors are almost as great.

Following the usual practice no vacations with pay are given to motormen or conductors on the Cleveland street railway. In some cities companies lay off men one day in 8, but in Cleveland platform men may lay off whenever they choose, providing that the conditions of traffic will allow it. They are favored in other respects. If they are "called and not used," that is, report for duty and on account of weather or other reason beyond their control perform no work, they are allowed an hour's time for so reporting. Moreover, if a motorman or conductor reports for work but through no fault of his own, does not start until later, he is paid for the time elapsing until he actually begins work, in addition to being paid for the time worked. Both of these provisions are set forth in the agreement. Formerly the practice was to require men to report every day and then pay them only for the time worked.

Accidents

That employment on street cars is nor considered a dangerous occupation is evidenced by the fact that insurance companies consider street car men a first-class risk. Compared with steam railroad occupations the hazard is slight.

Table 5 taken from the report of the Ohio Public Utilities Commission gives by specified groups the number of those killed or injured by street and suburban railroads in Ohio, 1914. It is to be noted that almost three-fourths of those killed were travelers on highways and that of the injured over two-fifths were passengers.

TABLE 5. ACCIDENTS ON STREET AND SUBURBAN RAILROADS IN THE STATE OF OHIO, 1914.

Class of Persons	Street and Suburban Railroads	
	Killed	Injured
Employees	4	1327
Passengers	10	3560
Travelers on Highway.....	43	3103
Trespassers	4	12
Persons under Agreement or Contract.....	....	....
Others not Trespassing.....	....	....
Total.....	61	8002

In Table 6 is shown the number killed and the number injured by street and suburban railroads in Cleveland during the year 1914 as taken from returns made to the Public Utilities Commission. It is noticeable in this table, as in the one preceding, that travelers on the highway form the preponderating number of those killed, and that passengers, as likewise shown in the previous table, form the largest proportion of those injured.

TABLE 6. ACCIDENTS ON STREET AND SUBURBAN RAILROADS IN CLEVELAND, 1914.

	Cleveland Railway Company	
	Killed	Injured
Employees.....	....	780
Passengers.....	2	2692
Travelers on Highway.....	18	1254
Trespassers.....	....	....
Total.....	20	4725

Labor Unions

Union organization among street car employees is accompanied by numerous difficulties which are not met with in the organization of the

trades. In the first place the street cars are manned by a class of workers, who, within the course of ten days, are trained to perform their duties. This makes them easier to replace, if need be, than in such an occupation as locomotive engineering, which requires a long preliminary training. As the business of street car companies is confined mostly to cities, a large and varied labor supply is usually at hand on which to draw if the occasion warrants. In cases of strike many of the extra men who have not joined the unions are sometimes willing to continue at work in order to be placed on the regular list, and thus increase their meager earnings. It should not be forgotten, too, that a large proportion of street railway employees are recruited from among farmers or farm hands, occupations in which any form of organization is totally unknown.

There are, however, a certain number of elements which make for organization. As compared with the garment trades in which the workers are largely of foreign birth, speaking different tongues, street car occupations are held almost wholly by men of native birth who have the same ideals and use a common speech. Both motormen and conductors are equal in rank, have a common rate of pay, and the same chances of gaining the positions of inspector or dispatcher, the next highest in rank. Furthermore, the motorman often times is called upon to act as conductor on a "trailer" and this tends to unite more closely the men in the two positions. Finally the workers come in contact with one another in the various stations, where they may exchange views, and thus lay the foundations in many cases of a "camaraderie" which is not possible where they are closely confined under strict supervision as in a factory.

The nature of the service required in street car transportation early brought forth a form of organization such as is found among the United Mine Workers in which all in the industry regardless of occupation hold membership in one body. This type of labor organization is known as an industrial union, as contrasted with a trade union, in which only men in one specific occupation as carpenters, plumbers, sheet metal workers, etc., are eligible to membership. Among street railway employees, this form of union held sway in Cleveland up to eleven years ago, when after a strike it was broken up, and a union consisting only of motormen and conductors was established.

Over ninety per cent of the motormen and conductors employed by the Cleveland Railway Company are members of the local association which is a branch of the Amalgamated Association of Street and Electric Railway Employees of America. A working agreement between the street car company and the union until May 1, 1916, or longer if agreed

upon, sets forth the conditions under which work shall be performed. It covers such subjects as arbitration, wages, hours, discipline, free transportation to employees, seniority, eligibility of union officials for service, posting of schedules, lay overs, drinking, pay for work when called for duty and not used, regulations for uniforms, continuance of wages when looking up evidence or giving testimony, loyalty to the company, etc.

Following in the footsteps of the great railroad brotherhoods the Cleveland division of the street railroad association endeavors to prevent strikes by arbitration. The agreement with the local street railroad company provides that "Should any dispute arise between them (the association and the company) which cannot be mutually adjusted, the same shall be submitted at the request of either party, to a board of arbitration and during the arbitration the conductors and motormen shall continue the operation of the Company's cars."

The board of arbitration, the agreement sets forth, shall be composed of three men: one chosen by each of the interested parties who in turn select the third arbitrator. Each party must name its arbitrator in fifteen days or forfeit its case, and the two arbitrators chosen shall select the third within ten days time. If the two arbitrators are unable so to do, the representatives of the company and of the association must with the arbitrators already chosen endeavor to agree on a third. Failing that, the third arbitrator is appointed by the judge of the United States Court in the Cleveland district. The findings of the Board are final and binding on both parties to the arbitration.

Hours of Labor

Street railway transportation, in common with other forms of transportation, performs a service which cannot be confined within a uniform number of hours like the work of the factory or store. Primarily it must serve the public when it is needed. A certain proportion of the public needs can be foreseen and provided for, but there is always remaining a small proportion which cannot be. The street railroad company is expected to maintain an even balance, on the one hand giving fair working hours to its motormen and conductors, and on the other, meeting the demands of the public.

If the traffic of a street car line followed an even course the running time of schedules could be easily arranged. If such a plan were feasible, a traction man once said, it would be possible to carry passengers at a one cent fare and make a profit, but traffic of any kind can never be so confined, and the Cleveland street car system, like that of other large

cities, is no exception to the rule. This may be clearly shown by tracing the cars per hour leaving any given spot over a street car line.

On the Superior Avenue line for example, the cars leaving the Cleveland Public Square average from two an hour to thirty an hour. The traffic causes two "peak loads"—a morning one from 7 to 8 o'clock and a heavier evening one from 5 to 6 o'clock. The morning peak shades off gradually and drops from twenty-seven cars per hour between 7 and 8 o'clock to twenty-three cars between 8 and 9, and to twelve cars an hour from then on until 3 o'clock in the afternoon when it again rises. The evening peak on the other hand reaches thirty cars per hour between 5 and 6 o'clock, falls sharply to sixteen cars in the next hour, and continues to decline slowly until one A. M. From this time until 5 o'clock traffic is at its minimum of two cars per hour.

It can readily be seen that an industry which is called upon to furnish such varying degrees of service must have irregular working hours for its employees. The maximum working hours to a certain extent are set by state laws and working agreements. The Ohio state law provides a maximum of 15 consecutive hours of labor for a conductor or motorman, with at least 8 hours rest before being called again for duty, unless an unavoidable accident intervenes to prevent it. The law sets only the maximum hours but the local union in its agreement with the Cleveland Railway Company has secured the following rule: "For motormen and conductors, all runs shall conform as near to a ten hour work day as possible, and no run shall exist that cannot be completed in less than twelve consecutive hours, with a lee-way of half of a trip to complete schedules in any calendar day of 24 hours, with the exception of swing runs which shall be completed in the shortest number of hours possible." It is also provided that if the union can show how the schedules of any line can be improved by shorter hours and better runs, and yet give the service desired by the company and required by the needs of traffic, alterations in the schedules will be made. Each motorman and conductor, moreover, is allowed under the agreement a four minute lay over at the end of each round trip.

This agreement, then, provides that no man with a regular run shall work more than 12 hours, and that a reasonable effort shall be made to enable him to complete his work in 10 hours. For the man on a swing run, or run in which the working hours are not continuous but at regular intervals, and the man with tripper runs, or runs given out by the trip and not on a regular schedule, the hours are not only long and irregular, but the actual time worked is sometimes small.

At the last annual convention of the street and electric railway employees the president of the association in speaking of the irregular hours made by holders of swing runs and trippers said: "In many cases these men are compelled to cover a period of from 16 to 18 hours of time in a day in order to secure from 3 to 9 hours of work. Especially is this true in the larger cities and affecting anywhere from 20 to 60 per cent of the membership in the respective cities."

To improve this condition and thus reduce the working hours of these men, he recommended that runs be established on a percentage basis, reducing the continuous hours to a lower basis until they were all brought within one period. By thus specifying a percentage basis for all runs in the agreement, consecutive hours of labor are clearly established.

That better results had not been attained in shortening the hours of holders of swings and tripper runs the union president attributed to the indifference of the men who had secured straight runs and were thereby not affected; to the desire of some men to work a few extra hours each day in order to secure the additional earnings; and to active opposition evinced by some members of the union to having any change made in their working hours.

The working time of men employed as motormen and conductors in Cleveland is shown from data which were presented by the union at an arbitration in 1914. Table 7 shows that of 851 men employed on 9 different lines in 1914 more than one-third worked 10 hours or over; two-fifths from 9 to 10 hours, or combining these groups, approximately three-fourths of these men worked 9 hours or more per day. The table follows:

TABLE 7. NUMBER AND PER CENT OF MEN WORKING SPECIFIED NUMBER OF HOURS ON NINE CAR LINES OF CLEVELAND, 1914.

Hours	Number	Per Cent
10 or over.....	298	35
9 to 10.....	340	40
8 to 9.....	114	13
7 to 8.....	16	2
less than 7.....	83	10
Total.....	851	100

It was also brought out at this arbitration that these men had been paid for 7744 $\frac{1}{4}$ hours although it took 11,372 hours for them to complete their runs, thus causing them to lose 3667 $\frac{3}{4}$ hours or over 32 pe-

cent of their time. Each man averaged approximately $13\frac{1}{3}$ hours on duty with actual working time a little in excess of nine hours.

Figures submitted at the same arbitration gave the total number of hours for which 994 men on nine lines were paid for regular service and rush trips. Each man of the group secured an average working day of approximately eight hours. When the extra men are included the total number employed on the nine lines was raised to 1148 with an average working day for each man of six and nine-tenths hours.

From the foregoing figures it will be seen that the actual working hours of a conductor or motorman in regular service on a schedule run are not excessive. Even including rush trips a normal working day is secured. But when the time lost is considered the working day is made unnecessarily long by almost one-third. While no figures are available for the time spent on duty by the extra men their average hours on duty are usually higher than those of men on regular schedule, and their average hours of actual service, which represents earnings, much lower than those given for the whole group. These men formed over 13 per cent of the total number employed on the nine lines for whom data were submitted, and constituted an element on which long hours on duty coupled with short hours for actual time worked bore very heavily.

Wages

In the granting of wage rates by street car companies two different plans are followed. In some, a flat rate regardless of the period of service has been adopted; in others, a sliding scale over a period of years has been the plan chosen. The large majority of the companies have established the latter method, paying the maximum wage in from two to ten years time. This is shown by a comparison of wage rates paid to the employees of 108 divisions of the street and electric railway employees association on September, 1915. In twenty five per cent of the divisions the maximum wage was paid at the beginning of the sixth year of service; in 19 per cent at the beginning of the second year and in 16 per cent at the beginning of the eighth year of service. Table 8 shows these data:

TABLE 8. PER CENT OF DIVISIONS OF STREET AND ELECTRIC RAILWAY EMPLOYEES ASSOCIATION WHICH RECEIVE THE MAXIMUM RATE OF PAY IN THE YEAR ENUMERATED

Per Cent	Year in which maximum rate of pay is received
25	sixth
19	second
16	eighth
12	first
10	third
7	fourth
7	fifth
4	tenth
100	

Each plan offers certain advantages. Where the maximum rate of pay is secured only after a comparatively long period of service it has a tendency to increase the loyalty of the men to the company and acts as a partial deterrent to strikes. Where the maximum is secured after a short period of service it has the advantage of placing the majority of workers on the same plane, and is especially beneficial to new men. As a usual rule street car companies are favorably inclined to the plan which requires a long period of service before the maximum wage is reached, while the unions favor a high minimum wage with the majority of workers paid the same wage rates.

From the standpoint solely of wage rates the motormen and conductors of Cleveland are fortunate. Their wage rates have not only risen but they are also far above the average paid in most cities. In 1903, motormen and conductors were paid 22.2 per hour but by 1914 the rate had increased to 27 cents per hour for the first year, and 30 cents per hour for the second and all succeeding years. Under the 1915 agreement these rates were increased to 29 cents per hour for the first year and 32 cents for the second and all succeeding years.

Of union wage rates for these same cities there are only 6 street railway companies or 5.6 per cent of the whole number enumerated which paid a higher rate to motormen and conductors during the year than did Cleveland. Of these cities which are enumerated in Table 9 all started the men at a lower rate at the beginning of their work than Cleveland paid, but during the year allowed an increase which equalled or exceeded the rate set for this city.

TABLE 9. CITIES IN WHICH THE UNION RATE PAID TO MOTORMEN AND CONDUCTORS DURING THE FIRST YEAR OF SERVICE EQUALS OR EXCEEDS THAT PAID IN CLEVELAND, SEPTEMBER, 1915.

City	Rate per hour First year cents
Cleveland	29
Sharon, Pennsylvania	25-29
Hubbard, Ohio	27½-29½
Detroit	25-30
Newcastle, Pennsylvania.....	28-30
Niles, Ohio	28-30
Youngstown, Ohio.....	28-30
Ypsilanti, Michigan.....	25-32

When maximum rates are considered only two of the 106 cities exceed the 32 cent rate paid per hour to Cleveland street car men, and in none of these cities was this rate granted before the second year, which is the year in which the maximum rate is reached in this city. Moreover in all the 106 cities there were only 7 in which the Cleveland maximum rate an hour was equalled or excelled. These cities are enumerated in Table 10.

TABLE 10. CITIES IN WHICH THE UNION RATE FOR MOTORMEN AND CONDUCTORS EQUALS OR EXCEEDS THE MAXIMUM PAID IN CLEVELAND, AND YEAR IN WHICH MAXIMUM IS REACHED, SEPTEMBER, 1915.

City	Maximum Rate	Year Granted
Boston	32	6
CLEVELAND.....	32	2
Newcastle	32	2
Niles, Ohio	32	2
Youngstown, Ohio	32	2
Ypsilanti, Michigan	32	2
Billings, Montana	30-33½	3
Chicago	35	6

Wage rates paid per hour to motormen and conductors in cities comparable to Cleveland on a basis of population are presented in Table 11.

These data are taken from the list of 106 cities in which union rates are paid to street railway employees. The cities range in population from 670,000 for Boston to 233,000 for Indianapolis and are presented in descending order of population.

TABLE 11. UNION WAGE RATES, BY YEARS, PAID TO MOTORMEN AND CONDUCTORS IN CITIES COMPARABLE TO CLEVELAND ON A BASIS OF POPULATION, SEPTEMBER, 1915.

City	Rate per hour by years									
	1	2	3	4	5	6	7	8	9	10
Boston.....	26 $\frac{3}{4}$ -27	28 $\frac{1}{4}$	29	29 $\frac{1}{4}$	30 $\frac{1}{4}$	32	....	....	....	....
CLEVELAND.....	29	32	....	....	....	....	....	....	....	....
Detroit.....	25-30	32	....	....	....	....	....	....	....	....
Buffalo.*.....	23	24	25	27	28	29	29	29	29	30
	23	25	26 $\frac{1}{2}$	28	29	30	....	....	....	....
Cincinnati.....	21-22	24	24	25	25	25	26	26	27	28
Indianapolis.....	21	23	24	25	26	27	....	....	....	....

*Two divisions of the street railway union.

From the above table it is seen that of the six cities enumerated only two pay the maximum reached in Cleveland, and with the exception of Detroit in none is it gained in such a short period of service.

Comparing the wage rates of motormen and conductors with those of other comparable industries it is seen that they are somewhat higher than those for teamsters, draymen and carters and closely approximate those of chauffeurs.

In the payment of wages the street car company is confronted with a very different situation from that of any other corporation or business. Of the operating expenses approximately three-fifths go to wages and salaries, in fact one-half of the operating expenses of Cleveland's street railway in 1914 were spent in the payment of wages to motormen and conductors alone. In probably no other business does the outlay for wages reach such a large proportion. Moreover every increase in wages bears heavily upon earnings because the rate of fare charged is limited by law or custom; because increase in earnings is usually slow, and for the reason that street car companies are usually limited to one source of revenue. The only return that the employee can make is to aid in reducing the number of accidents and thus reduce the number of costly

lawsuits. He cannot, as in other businesses, increase the number of sales and thus make himself more valuable to his company.

As has been shown in preceding tables the wage rates of Cleveland street car service, in spite of having a three cent fare which is the lowest in the United States, are among the highest of cities for which data were collected by the street car men's association. Such data, however, do not show what is actually earned by the employee. An attempt to get at the earnings of the men is made difficult on account of the irregularity of the hours worked, the number of runs made per day, and the time spent in lay-offs. Taking the amount expended in wages for the year 1914, and dividing it by the approximate number of motormen and conductors employed, an average yearly wage for motormen and conductors of \$798.54 is the result, or monthly earnings per man of \$66.54. For men who work seven days a week, ten hours a day, the wage made during the first year on a regular scheduled run would be \$20.30 per week, and the second year \$22.40 per week. It is clear however, that such a wage could not be earned steadily throughout the year, and represents maximum rather than normal earnings.

Taking the data submitted by the union for 851 men on 9 lines at the 1914 arbitration, estimating all the men to be in the second year at least of regular service, the amount of earnings per day of 35 per cent would be \$3.20 or over; of 40 per cent from \$2.88 to \$3.20 per day; of 13 per cent from \$2.56 to \$2.88 per day; of 2 per cent from \$2.24 to \$2.88 per day; and of 10 per cent less than \$2.24 per day. These figures do not apply to Sunday service.

It is impossible to find the amount of earnings of extra men, but taking the data submitted at the same arbitration for 1148 men, in which 143 extras are included, the average daily wage estimated for the first year of service would be \$2.00, and for the second year \$2.20 per day.

Educational Requirements

The transportation situation for the street railway has many points of analogy with that of the steam railroad. To a few men are entrusted the operation of rolling stock and the lives of passengers which represent a high value, and upon them rests the responsibility of protecting the car from accident and transporting the passengers quickly and safely. It is very evident that training is required for the men who operate cars, and that the railway company merely as a protective measure, if for no other reason, must give that training. Moreover, as in the case of the steam railroads, the street railroad is better fitted to train men learning

the work of motormen and conductors than any other agency; and again as in the case of the steam railroad, the street railroad company gives the instruction expeditiously, thoroughly and at the least possible expense. This training also serves as a weeding out process reserving to the company only those whom it considers physically and mentally capable of doing the work. In transportation occupations, as in many others, the requisite knowledge can be gained only by actual practice.

Coming now to the actual "book knowledge" required of the applicant it may be said, that once more as in steam railroad occupations, a knowledge of the "three R's" is sufficient educational groundwork for the positions of motorman or conductor. The application blank makes no mention of any educational requirements, naturally presupposing that the person who fills in the blank is able to read and write the English language. He must also understand the fundamental processes of arithmetic, and be familiar with the coinage of the country. Most of the men employed on the Cleveland street cars have had a common school education, but few have had more than that.

For the higher positions in the service, no further educational training is considered necessary than that given for the platform positions, nor do men with greater education than that supplied by the common school have any advantage in gaining a higher rank. Fitness for the work and a certain trait, a sort of sixth sense which enables a man to reach a solution of transportation problems and meet all emergencies such as blockades, rerouting, etc., quickly and effectively, and which no amount of training or education can fully supply, are considered more important as qualifications, for higher positions in street railway transportation than are educational qualifications. "The school of experience" for these occupations is looked upon as the most important single element in fitting the man to the position, and in qualifying him for higher ones.

MOTOR AND WAGON TRANSPORTATION

INTRODUCTION

The carriage of goods by motor or horse drawn vehicles over country roads and city streets is the most expensive of all forms of transportation. The people of the United States spend each year over \$50,000,000 on import freights by water¹, \$2,000,000,000 on transportation of commodities by rail, and probably more than total of those two sums for cartage.² What Cleveland pays each year for cartage and drayage is unknown but it is probable that the amount is far in excess of that spent in supporting the various departments of the city government.

In the work of collection and delivery, vehicles of some sort or description are part and parcel of every business. The use of motor driven vehicles has increased so of late until the prediction that the 20th century is to be a "horseless age" seems to give promise of early accomplishment. In Cleveland and its environs alone, some 27,000 gasoline or electrically propelled vehicles were operated in 1915, and for the year 1916 it is predicted that their number will increase to 30,000.

It is customary to consider all drivers or chauffeurs of the various kinds of vehicles which we see every minute of the day plying thru our crowded streets as doing the same kind of work. A close analysis, however, shows that their duties vary widely. While common to all forms of industry, drivers and chauffeurs have their duties almost as clearly differentiated as those of other employees in the same establishment.

The men may be divided into two classes. For those in the first class some form of driving or teaming is the essential element of their work. This class is represented by chauffeurs and drivers for express companies and transfer companies, draymen, carters, teamsters, and men employed by moving and storage companies, heavy and light teaming companies, and all other concerns whose principal work it is to move from one place to another goods of every description. The second class, which is a far larger one, includes chauffeurs and drivers for the various kinds of stores, businesses and industries in which the moving of raw materials or finished products while necessary to the business is subsidiary to it. In this group also would be included the large number of

¹Ocean Shipping, by the National Foreign Trade Council, Pp. 25-30.

²Speech of Secretary of Commerce Redfield, Austin, Texas, and Newark, N. J., 1914-1915.

grocerymen, milkmen, bakers, and other small tradesmen who, in the residential sections of every city, are engaged in the sale of food products and other necessities.

The importance of these occupations is shown to some degree by the numbers engaged in them. It is estimated that there were in Cleveland in 1915, 3886 draymen, teamsters and expressmen, and 656 chauffeurs, making a total of over 4500 men. When we include public and private chauffeurs, drivers of horse-drawn, gasoline, and electric trucks and wagons, the number of men employed in Cleveland in this work would approximate 5000.

Conditions of Labor

Motor driven vehicles, either electric or gasoline, have long since passed the experimental stage and are being used in practically every form of industry. The electric is essentially a city type of vehicle. It cannot be used extensively in country work on account of the recharging of the batteries which must be done at service stations or garages after a comparatively short mileage has been made. It has the advantage, however, of being clean, easy to operate, and of a speed confined to about ten miles an hour. It is largely used in the delivery of retail merchandise. The gasoline truck or wagon has a far wider use in all kinds of delivery work and various kinds of trucking. In suburban and long haul service it has little competition from either horse-drawn or electric vehicles, greater speed than either of them, and almost unlimited carrying capacity. Its fuel, gasoline, can be secured almost anywhere.

The use of horses and wagons is constantly lessening. In some forms of retail business in which many stops must be made in covering a route such as in delivering ice, milk, etc., the use of the horses and wagons is still considered the most economical practice.

In practically all establishments in which motor-drawn trucks have supplanted horse-drawn vehicles the drivers have become the chauffeurs. The driver understands the delivery part of the work and with a little training at the hands of a competent instructor soon becomes proficient in operating the truck. In the case of a local company which purchased a number of motor trucks a former driver was instructed in motor truck driving in less than a week by a representative of the company from which the trucks were purchased. The driver in turn instructed a helper who was put on the second truck purchased.

In some cases in which large companies go over to the use of motor drawn vehicles entirely, the drivers are sent to the automobile factory of

the company furnishing the vehicles to be instructed by an expert in the various stages of automobile construction. The parts entering into such construction and their proper care is explained and the results of neglect. The physical operation of the truck is also gone into in detail. Then, in a few days, the men, accompanied by instructors, are taught to handle the trucks in crowded traffic, and how to properly lubricate and adjust them. After the men have operated the trucks for a short time they are examined by a representative of the service department of the automobile company furnishing them, and this examination is repeated at stated intervals. If certain parts of the truck are not properly oiled or cared for, according to previous instructions, the driver's attention is called to it. He is also given a book of instructions for keeping the truck in good running order.

An experienced chauffeur, besides the actual operation of his car or truck, is usually expected to make minor repairs and simple adjustments and to lubricate the running parts. In businesses in which a large "fleet" of cars or trucks is used all but very minor repairs are made by repairmen. Where but one or two motor vehicles are used the driver does more of the repair work, but those repairs which need an expert repairman are usually made at a service station or general repair shop.

As in all other occupations, the chauffeur or teamster needs certain general qualifications and certain special ones according to the nature of the work in which he is engaged. Among the general qualifications necessary for this class of workers are physical fitness, alertness, sobriety, carefulness, honesty, and reliability, besides a thorough knowledge of city streets and city ordinances relating to traffic.

The nature of the business is the influencing factor in determining special qualifications. The chauffeur of a delivery wagon must be able to so route his packages as to be able to get over his territory in the shortest possible time. He needs also to be neat and courteous to patrons of the company for he is its representative.

The chauffeur or driver of an express wagon or transfer wagon must be punctual since in his work time is an essential element. Failure to deliver a consignment of fruit which reaches the consignee too late for market may mean the loss of a large amount of money. A passenger's baggage which fails to catch the proper train may cause the traveler no little inconvenience.

For men in charge of heavy teaming some knowledge of a millwright's duties is necessary, for in many cases, pieces of machinery, or a whole factory equipment, must be dismantled, loaded and unloaded and set in the place assigned. For this work some knowledge of blue print reading is necessary.

Some drivers and chauffeurs have to be salesmen. Drivers who deal with retail trade in laundry work, bake shop products, milk, ice, bottled beer, groceries and other commodities of household use especially need this selling ability. For these men, the delivery of the goods is only incidental. As in the case of the average salesmen these men need to be obliging, honest, prompt and able to sell their wares. They are expected not only to hold the business of the district allotted to them but also to increase it. In most cases their earnings depend in large measure upon their success as salesmen.

Private chauffeurs form another class to be considered. Before automobiles were as mechanically perfect as they are today, chauffeurs were drawn from the trained mechanic class. This is still true to some extent in Cleveland. In families in which a large number of cars are kept the chauffeur is in the nature of an automobile mechanic and makes many of the repairs besides thoroughly overhauling the cars once a year. Moreover as Cleveland is an automobile manufacturing center, it is not uncommon for automobile purchasers to secure their chauffeurs from the company which builds the cars.

The chauffeur who is employed by the family with one automobile is differently situated from the chauffeur with the family having a number of cars. In the former instance he resembles in many ways the old-time family coachman. He sweeps the walk, cuts and waters the grass, fetches wood, washes windows, etc., in addition to his regular duties. He is supposed to make minor repairs but cannot always do so.

Nativity and Age

The occupations of draymen, teamsters and expressmen, as well as that of chauffeurs, in Cleveland, belong to what may be called native American occupations for the reason that in them the native born form the preponderating number. Of 3352 draymen, teamsters and expressmen in Cleveland in 1910, little more than one-third were of foreign birth, and of 566 chauffeurs less than three-tenths were born abroad.

These same occupations employ many young men. Two-thirds of the draymen, teamsters and expressmen noted in the preceding paragraph were between the ages of 21 and 44, and of the chauffeurs four-fifths of the number came within this group.

In addition to being largely native born and comparatively young as a class, local teamsters and chauffeurs are mostly Cleveland men since one of the qualifications necessary is a knowledge of the city and of its streets.

Regularity of Employment

Regularity of employment at best is but a relative term so far as industrial occupations are concerned. Compared with all industrial occupations followed in Cleveland those of teamsters are fairly steady; compared with other outdoor occupations, which is a more equable comparison, they are probably the steadiest.

Among the industries reported by the industrial establishments in Cuyahoga county to the state Industrial Commission, the fluctuation in employment, during the calendar year 1914 for employees of thirty-seven cartage, drayage, storage and livery companies amounted to 13.6 per cent.

When compared with the yearly fluctuations in other industries which vary from less than three per cent in certain personal service occupations to over 83 per cent in street, road and sewer construction, teamsters stand well up on the list. When checked against the degree of fluctuation in other outdoor occupations the contrast is still more striking. In marble and stone work the amount of fluctuation of employment is 50 per cent, and in ship building and amusement parks 75 per cent.

Union Organization

In Cleveland there are branches of the International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers established among the truck drivers, van drivers and furniture handlers, taxi chauffeurs, beer drivers, ice wagon drivers and helpers, pop and selzer drivers, sanitary drivers (garbage collectors) and recently the laundry drivers. The membership in these branches has not been made public. A membership fee of \$10 to \$15 is charged in some locals with a monthly assessment of \$1.00.

In addition to the teamsters and chauffeurs union there is a local organization of a social nature known as the Ohio Automobile Operators Association. The association has a membership of 750 men, mostly chauffeurs in the employment of private automobile owners, and public chauffeurs.

The chauffeurs union has done much to further the interest of its members. It has been able to narrow the duties of the teamster in most cases to that of driving, and while not able to abolish overtime work, it has secured wage rates to be applied when overtime work is called for. Furthermore, instead of a driver being paid by the hour or by the job the union has been able to secure weekly wage rates. Provision is made for seasonal trades by allowing the employment of extras and helpers who

are sometimes paid by the hour or day. A minimum wage in most instances has been set with the terms of agreement not to affect any higher wage which is paid. Wage increases in many cases in such agreements are secured by seniority or length of service. Where some sort of premium system or comission system prevails, the unions endeavor to have as generous a rate of commission allotted to the drivers as is possible to secure; and wherever bonding is required to have the employing company pay the charge made by the bonding company. It also endeavors to have the companies, as in department store deliveries, stand any loss of merchandise instead of charging it up to the drivers.

Hours and Overtime

The hours of teamsters of late years have been very materially reduced. This is due in part to the efforts of the union which have been instrumental in getting the extra work abolished. Teaming and driving has been one of the few occupations in which division of labor has been only partly carried out. As shown by Professor Commons in "The Chicago Teamsters" the work of the stableman was in many cases taken over by the teamster, presenting the paradoxical situation of a city occupation to which the farmer's work of "caring for the stock" still clung. In most Cleveland establishments using horses and wagons to any extent, these duties are attended to by stablemen and the only extra work required of the drivers is to hitch up and unhitch their teams. The stablemen also perform all Sunday work.

With the coming of motor trucks a large number of drivers became chauffeurs, and the extra work required of them is small. In businesses using a large number of motor vehicles, repairmen or garage foremen see that the trucks are oiled, adjusted and kept in good order, and even in establishments where the driver is required to take care of his truck or wagon the work consumes but a few extra minutes and no time on Sunday.

The hours worked in Cleveland by drivers of either horse-drawn or motor vehicles depend largely on the nature of the business in which the driver is employed, and also upon whether the union is recognized or not. In certain industries, however, in which no form of union organization prevails among the drivers, union hours of labor are observed. A working day of 10 hours with a working week of 60 hours is the accepted standard of agreement, except that for sanitary drivers (garbage collectors) and one local of the bottled beer drivers union, a working day of eight hours and a working week of 48 hours is the union provision. Drivers, barn bosses, and foremen employed by ice companies work six hours on Sunday in addition to 10 hours on each week day.

The hours of unorganized drivers range from 10 to 12 a day. In those dealing with retail trade such as milk, bread, laundry work and provisions they are sometimes irregular owing to the fact that the drivers must take the time necessary to cover their routes which often vary according to the amount of business being done. In milk and bread delivery the work is done largely in the early morning hours, and but one trip made per day. In laundry and grocery delivery the hours of work vary with the days of the week with Saturday as the heaviest day. Drivers in some lines of express service, notably the commission house trade, begin work as early as four o'clock in the morning, and work by short relays throughout the day. Each man averages about 11 hours a day.

As in railroad transportation teamsters and drivers in certain forms of businesses have had to accommodate themselves to its needs or to long established customs which have prevailed in it. While this irregularity of hours which results cannot be totally eliminated, the unions have endeavored to mitigate the evil by requiring pay for overtime. For auto van drivers, chauffeurs, furniture packers, warehousemen and drivers of horse-drawn vehicles in Cleveland the union rate for overtime is time and a quarter, and if they are called upon to work Sundays or holidays double time is demanded. Truck drivers and chauffeurs of either horse-drawn or motor-drawn trucks, riggers, and keg and bottled beer drivers receive time and half time for overtime work with double time on Sundays and certain stipulated holidays with pay. In the case of ice wagon drivers, barn bosses and foremen, overtime is paid for at the rate of 30 cents per hour with a stipulated day of six hours on Sundays.

Wages and Commissions

The wages of teamsters and drivers of various kinds of commercial vehicles in Cleveland may be divided into two groups: those in which a regular wage is paid, and those in which some form of commission or premium is given in addition to the regular wage.

Wage rates are on a monthly, weekly, daily and hourly basis according to the practise followed in the industry. In some large establishments in Cleveland such as express companies, transfer and taxicab companies the wage rates are usually from \$50 to \$75 a month. In families in which private chauffeurs are employed the wage is also on a monthly basis and varies from \$40 to \$100 a month, with an average of approximately \$75. Weekly wage rates range from \$12 to \$20, and day rates from \$2.25 to \$3. On an hourly basis the minimum according to union scales, is 19.17 cents and the maximum 50.00 cents.

In certain industries in Cleveland which have to do with retail trade the wages paid are low, but the drivers make as much on commissions as they do in wages. In one establishment the drivers are paid a dollar a day with 5% commission on all business; in another, \$9 a week and commissions on business which in many cases amount to as much and in some cases more than the wages. Drivers who deliver bottle beer receive $2\frac{1}{2}$ cents per case of empty bottles returned. It is the practice, too, in some businesses at times to offer money prizes to the driver securing the greatest amount of new business within a certain period. In taxi cab driving the tips are said to amount to as much as \$10 or \$12 a week, and they also form a certain part of the earnings of drivers of transfer companies' wagons.

In comparing wages of drivers of horse-drawn and power-propelled vehicles in Cleveland, the union rate paid to truck drivers, 32.50 cents per hour, is slightly higher than that given to drivers of horse drawn trucks. In the latter case it ranges from 19.17 cents per hour for a light single team to 29.17 cents per hour for a 3 horse truck. Riggers and some drivers in the brewers union are exceptions to this rule. The rates for riggers, fifty cents an hour, are the highest of any of these occupations. In general the wages earned by the driver of motor-drawn trucks are slightly higher than those paid to drivers of horse-drawn trucks, especially if the trucks are of large horse power. This is true only of gasoline trucks and not of electrics in which case the wages approximate those paid the average teamster, driver or deliveryman.

In table 12 are given the union wage rates per hour of teamsters and truck drivers in Cleveland in 1915.

TABLE 12. UNION WAGE RATES OF CHAUFFEURS AND TEAMSTERS IN CLEVELAND, 1915.

Teamsters	cents
Teamsters helpers.....	25.00
Horse-drawn vehicles.....	26.27
Sanitary drivers helpers.....	28.13
Warehousemen.....	30.00
Furniture packers.....	30.00
Auto van drivers.....	30.00
Sanitary drivers.....	31.25
Chauffeurs.....	33.33
Soft drink drivers.....	33.33

Ice Handlers and Helpers*

Drivers, water wagon	24.24**
Drivers, regular route wagon.....	27.27**
Drivers motor truck	27.27**
Drivers, 2 horse drawn trucks	27.27**
Drivers, 3 horse drawn vehicles	27.27**
Barn boss	33.33
Foreman	33.33

Brewery Workers

Drivers, bottled beer, routes.....	28.07***
Drivers, extra keg beer.....	31.48
Drivers, bottled beer.....	35.42***
Drivers, keg beer.....	37.04

Truck Drivers

Light single.....	19.17
Heavy single.....	20.83
Light double.....	22.50
Chauffeurs' helpers	24.17
Two horse.....	25.83
Three horse.....	29.17
Chauffeurs.....	32.50
Riggers.....	50.00

* Drivers' helpers and drivers of special wagons \$2 a day.

** After first six months of service an increase of \$2 a week.

*** A commission of $2\frac{1}{2}$ cents per empty case returned.

When the question of wages is considered from another viewpoint—that of the proportion in specified wage groups in an industry, reference is made to data collected by the state Industrial Commission for the year 1914. Of thirty-seven establishments engaged in cartage, drayage storage and livery in Cuyahoga county employing 872 men, more than two-fifths received weekly wages of \$15 but less than \$18, and more than one-third were paid \$12 but less than \$15 per week. Expressed in terms of percentages and arranged in wage groups these proportions were:

Men earning less than \$10 a week.....	5.5	per cent
“ “ \$10 but less than \$12	6.5	“ “
“ “ \$12 but less than \$15	35.3	“ “
“ “ \$15 but less than \$18	42.7	“ “
“ “ \$18 but less than \$25	9.3	“ “
“ “ \$25 but less than \$35	0.7	“ “

Total 100.0

Automobile Repairing in the Schools

Like the youngster in "Helen's Babies" who ruined a perfectly good timepiece in the endeavor to find "what made the wheels go wound," so almost every school boy is likewise curious about automobile construction and mechanism. Moreover with the constantly increasing use of the electric and gasoline automobile there has been a consequent demand for men to do repair work on them. Such courses are usually given by Young Men's Christian Associations and automobile schools.

Three private schools in Cleveland at present give courses in the construction and operation of the automobile. They are given to day and night classes, range in price from \$30 to \$60, and take usually from six to eight weeks to complete. The three schools have probably an enrollment of 100 to 150 students. Some of the students are of foreign birth and a number of them are drawn from nearby towns and villages.

In giving instruction these schools follow somewhat different methods. In one a large part of the instruction consists in doing repair work under the guidance of foremen with lectures on special subjects by men in the trade. The method of instruction in the other schools is by lecture and shop practice in alternating order. The students are taught the parts of the car and their operation by dismantling and assembling various types under the guidance of instructors.

The technical high schools of Cleveland can be of service in this field by introducing an elective course in automobile repair work open to third and fourth year students which would teach the fundamental principles involved in automobile construction. Such a course could also be given to night school students. The basic principle of this course should be, not to turn out finished repairmen as skillful as journeymen, but to give a course of training so that if the occupation is followed after graduation, quicker progress, keener perception, and more thoro workmanship will result than if the worker entered the occupation untrained or insufficiently trained. The theory necessary for an understanding of repair work could be well taught in such a course, and this cannot be acquired by a worker in the average shop. The importance of "knowing why" which is the correct interpretation of theory is shown by the criticism of a sales manager of an automobile service department who stated that his men in a large number of instances did things mechanically and did not "mix brains with their work."

It would be possible in a school course in repair work to teach to best advantage by having the students dismantle and assemble an automobile

in order that they might learn the operation and use of each part which enters into its construction. A wrecked car might be purchased, dismantled by the students, under the direction of an instructor, and reassembled under his guidance. The students by following this method would learn the use and operation of each part entering into automobile construction. They would gain, also, a critical insight which comes with all forms of actual constructive work.

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